REMARKS/ARGUMENTS

Claims 1-22, 24 and 25 stand rejected, with claim 26 withdrawn from consideration. Applicants have cancelled without prejudice claims 11-13 and amended claims 1, 14 and 22. Accordingly, claims 1-10, 14-22, 24 and 25 remain in this application.

The Examiner's acknowledgment of Applicants' claim for foreign priority and receipt of the certified copies of the priority documents is very much appreciated. Additionally, the Examiner's consideration of the prior art submitted with Applicants' previously filed Information Disclosure Statement is appreciated.

Claims 13 and 14 stand rejected under 35 USC §112 (second paragraph) as being indefinite. Specifically, the Examiner indicates that it is unclear as to what the percentages used in claims 13 and 14 (and elsewhere) are referring to, i.e., weight, volume or mole. The Examiner's indication that for examination purposes the percentages were treated as weight percentages is very much appreciated. The Examiner's experience in this regard is absolutely correct and Applicants indicate that it is well known in the art that, in the field of surface preparation and coating, components are provided in weight percent amounts. While claims 11-13 have been cancelled, the subject matter thereof has been incorporated into independent claim 1 and both claims 1 and 14 have been amended to clarify that the percentages are percentages by weight. This amendment to claims 1 and 14 is believed to obviate any further indefiniteness with respect to these claims and any further objection thereto is respectfully traversed.

Claims 1, 11, 12, 15, 20, 22 and 24 stand rejected under 35 USC §102(b) as anticipated by Sugio (U.S. Patent 4,086,128). The Court of Appeals for the Federal Circuit has noted in the

case of *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984) that "[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim."

Applicant's independent claim 1 recites a method for preparing "the surface of a **coated** structure for the application of an overcoat", i.e., the surface being prepared is the preexisting "coating" and not the underlying surface of the structure. Applicants' claimed method is a two-step method providing a fist step of "cleaning the surface of the **coat**" and "applying an oxidizing agent to the cleaned surface [of the coat]" with the particular details of the oxidizing agent being hydrogen peroxide and the concentration being in the range of 1 to 10% by weight also being specified in the amended claim 1. While the Examiner suggests that these two steps are disclosed in Sugio, Applicants contend that what is disclosed in Sugio is not the claimed two-step method of preparing a surface of a coat.

The Sugio reference is a "process for roughening a surface of epoxy resin" (column 1, lines 5-6). As further explained in column 1, Sugio is to prepare the surface of an uncoated epoxy resin so that a metallic film can be formed thereon (column 1, lines 12-20). In contradistinction thereto, Applicants' independent claim 1, even prior to the above amendment, specifies a method of preparing the surface of a coat in "a coated structure" i.e., whatever structure is present, it is already coated with some material and it is that material which is being prepared, not the structure's surface.

As discussed in Applicants' specification, a significant benefit of the present invention is to clean and prepare an initially coated structure for the final paint topcoat while the structure may have been contaminated between the initial coating and the paint topcoating. Thus, Sugio is

concerned with preparation of the surface of the structure itself and not a coated surface. Sugio has nothing to do with obtaining a proper bond between an "overcoat" and the initial "coat" on a coated structure. Sugio instead is concerned with providing sufficient roughening to an epoxy resin surface so that the surface can be metallically plated or coated with an initial coat. Thus, Sugio relates to the bond between an underlying surface and its first coat whereas the claimed invention is between the surface of a coated structure and a subsequent topcoat. Accordingly, even without the amendment to claim 1, Sugio clearly does not disclose the subject matter of Applicants' claimed invention because it has nothing to do with a coated structure or the application of an oxidizing agent to a cleaned surface "of the coat."

Applicants' invention is with respect to cleaning and then oxidizing the coating on a structure rather than the structure itself, whereas, as clearly disclosed in the cited portion of the Sugio reference, the hydrogen peroxide and sulfuric acid "is used as the etching solution of the present invention" (column 3, lines 46-47). The whole point of the Sugio treatment is to roughen the surface of an epoxy resin and not to clean or prepare the surface of a coating on a structure. Accordingly, any further rejection of independent claim 1, either as initially worded or as currently amended, over the Sugio reference is respectfully traversed.

Claims 1-22, 24 and 25 stand rejected under 35 USC §103 as unpatentable over Polyfiber in view of Chemetall, Sugio and Ball. The Examiner suggests that "Polyfiber broadly teaches the cleaning step, but is silent as to the specific chemicals that should be used for cleaning in preparing the surface for overcoating." The Examiner's admission that Polyfiber "does not explicitly teach cleaning with a cleaning solution" is very much appreciated.

The Examiner correctly notes that "Chemetall teaches an alkaline cleaner specifically designed to predictably clean aircraft surfaces." While the Examiner is correct that Chemetall teaches an "alkaline cleaner," there appears to be no disclosure that it teaches the application of an oxidizing agent to the "cleaned" surface of the overcoat. Applicants have carefully reviewed the entire Chemetall reference and can find no indication of any teaching or suggestion that an oxidizing agent should be applied to a previously cleaned surface. Accordingly, exactly where or how the Examiner believes that Chemetall teaches the step of applying "an oxidising agent to the cleaned surface" is not seen and clarification is respectfully requested.

Again, it should be pointed out that Chemetall is not related to any method of preparing the surface of a coated structure for application of an overcoat. Chemetall instead is directed towards a cleaner "for the exterior and interior cleaning of aircraft and ground handling equipment." It has nothing to do with solving the problem with the present invention noted in Applicants' specification, i.e., the preparation of previously applied "coat" for subsequent and/or final overcoating. Chemetall is merely used, at best, for cleaning the surface of a coat with a cleaning solution, i.e., step 1 of Applicants' independent claims. How or where the Examiner believes Chemetall teaches the use of an oxidizing agent on a cleaned surface of a coat is not seen and clarification is respectfully requested.

The Examiner apparently agrees that neither Polyfiber nor Chemetall "explicitly teach that the method of preparing the surface for an overcoating further comprises applying an oxidizing agent to the surface" (Official Action, page 5, lines 1-2) and therefore the rejection of claims 1-22, 24 and 25 includes a combination of four references, Polyfiber, Chemetall, Sugio and Ball (U.S. Patent 6,559,242). The Examiner correctly notes that Sugio teaches a method of

roughening a surface of an epoxy resin by treating the resinous surface with an oxidizing agent. The above comments regarding the Sugio reference and its teachings are herein incorporated by reference. Suffice it to say that Sugio is a method of roughening a surface so that that surface can then be coated for the first time, whereas the claimed invention is a method of cleaning a surface which was previously coated, so that it can be overcoated.

The Ball reference contains a teaching similar to that of Sugio, i.e., the use of an oxidizing agent as "a pretreatment of an epoxy substrate prior to the application of a metallic film thereon" and actually cites the Sugio patent. Again, neither Ball nor Sugio are concerned with the problem of the present invention, i.e., cleaning and preparing a coated surface to be overcoated. Both Ball and Sugio only apply the oxidizing agent to the raw structure surface and not to any coated structure surface. Sugio and Ball are directed to a completely different problem and a completely different solution, i.e., the adherence of metallic films or coatings on an underlying structure. They have nothing to do with the problem of improving adhesion between a coated structure and an overcoat.

Additionally, it is noted that Applicants have amended independent claim 1 to include the specific oxidizing agent being hydrogen peroxide and having a particular concentration in the range of "about 1% to about 10% by weight." While the Examiner correctly alleges that Ball teaches a concentration of hydrogen peroxide of 3%, it teaches the use of this 3% solution to roughen the surface of the structure to be coated and not a coating on the structure. As disclosed in Applicants' specification, it is desirable not to remove any significant portion of the underlying coating on the structure (i.e., sanding through or removing the underlying primer or initial paint coating). Both Sugio and Ball, in order to work on the underlying substrate, must be

applied to that underlying substrate and not to any coating on the substrate. Thus, they teach away from the claimed invention and the combination of the four references does not disclose or render obvious the subject matter of Applicants' independent claim 1.

Additionally, there is no reason why one of ordinary skill in the art would pick and choose elements from the various references and then combine them in the manner suggested only in Applicants' independent claim 1. For example, both Sugio and Ball teach applying the oxidizing agent to the underlying structure's surface. This is specifically taught for the purpose of roughening that underlying structure's surface so that it will be suitable for subsequent plating or painting. Applicants' claimed method step is applying an oxidizing agent to the "cleaned surface" i.e., the "surface of the coat" which has been cleaned in step 1.

While Polyfiber and Chemetall teach cleaning a coated surface, they certainly do not teach any effect on the coating itself. Thus, even if Polyfiber and Chemetall were combined with Sugio and Ball, one would clean the coated surface first and then have to remove the coating so that the underlying substrate could be roughened with the oxidizing agent. The Examiner provides no rationale or reason why one of ordinary skill in the art would have chosen to pick and choose components and/or steps from the four references and then combining all four in the manner which is only disclosed in Applicants' independent claim 1. Accordingly, no *prima facie* case of obviousness has been set out in the Official Action and any further rejection thereunder is respectfully traversed.

Finally, even if a *prima facie* case of obviousness was made out by the Examiner with respect to the four cited references, the fact that two of the four references clearly teach away from Applicants' claimed invention is a rebuttal of that *prima facie* case. Because Sugio and

Ball both teach that any oxidizing agent must be applied to the surface of the structure and not to a coated surface on the structure, they clearly teach away from Applicants' claimed combination.

Why would one of ordinary skill in the art use an oxidizing agent on a coated structure if the object of the oxidizing agent is to roughen the underlying structure's surface first? One would have to remove the coating first so that the underlying structure's surface can be roughened. This then would remove or eliminate the coating on the underlying structure, thereby defeating the whole purpose of the underlying primer coat as disclosed in Applicants' specification. As a result, utilizing the step of Sugio and Ball would defeat the whole purpose of cleaning the surface of the coat in the first step of claim 1 requiring the application of a new primer coat first before any overcoating can be undertaken. Thus, both Sugio and Ball would lead one of ordinary skill in the art away from Applicant's claimed method steps.

In view of the above, claim 1, as modified by the inclusion of the limitations of claims 11-13, clearly distinguishes over the subject matter of the Sugio, Ball, Polyfiber and Chemetall references and any further rejection thereunder is respectfully traversed. Inasmuch as all remaining claims depend directly or indirectly from claim 1, they are also clearly patentable over the Sugio, Ball, Polyfiber and Chemetall combination and any further rejection thereunder is respectfully traversed.

Claims 1-22, 24 and 25 also stand rejected under 35 USC §103 as unpatentable over Polyfiber in view of Van Eenam (U.S. Patent 5,516,459), Sugio and Ball. Inasmuch as the above comments deal with the rejection of claim 1 over the Polyfiber, Sugio and Ball references, the above comments are herein incorporated by reference. The Examiner appears to be referencing the Van Eenam patent as teaching the cleaning of a surface, which it undoubtedly does to some

extent. However, inasmuch as the Examiner admits that neither "Polyfiber nor Van Eenam explicitly teach that the method of preparing the surface for an overcoating further comprises applying an oxidizing agent to the surface" the Examiner indicates his complete reliance upon the Sugio or Ball references for teaching applying an oxidizing agent to the "cleaned surface" of the coated structure, i.e., they are applied to the surface of the coating and not to the underlying surface of the structure.

Thus, the rejection over the Polyfiber, Van Eenam, Sugio and Ball combination suffers from the same defect as the previous four-reference combination. Not only is there no reason to combine Sugio and Ball with Polyfiber and Van Eenam, but in fact, Sugio and Ball would lead one of ordinary skill in the art away from any such combination. Accordingly, any further rejection of claim 1 or claims dependent thereon over the Polyfiber/Van Eenam/Sugio/Ball combination of references is respectfully traversed.

Claims 2-8, 10, 13 and 14 stand rejected under 35 USC §103 as being unpatentable over Sugio by itself. Inasmuch as these claims depend ultimately from claim 1, the above comments distinguishing claim 1 from the Sugio reference are herein incorporated by reference. Inasmuch as Sugio clearly teaches the application of any oxidizer material to the underlying structure and teaches away from applying it to the surface of a coat covering an underlying structure, Sugio clearly teaches away from the subject matter of claims 2-8, 10, 13 and 14. Any further rejection thereunder is respectfully traversed.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that remaining claims 1-10, 14-22, 24 and 25 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the

opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact applicant's undersigned representative.

Respectfully submitted,

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